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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

December 19, 1994

BY HAND DELIVERY

Mr. William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W., Room 222
Washington, D.C. 20554

Re: ET Docket No. 94-32
Allocation of Spectrum Below 5 GHz

Dear Mr. Caton:

On behalf of 3Com Corporation, enclosed are an original and four copies of its Comments in the *Allocation of Spectrum Below 5 GHz Transferred from Federal Government Use NPRM*, ET Docket No. 94-32. Should any questions arise concerning this matter, please contact this office.

Very truly yours,



Frank R. Jazzo
Kathryn A. Kleiman
Counsel for 3Com Corporation

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Enclosures

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WASHINGTON, D.C. 20554

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

To: The Commission

I. Introduction

3Com is a pioneer in the technology of wireless Local Area Networks ("wireless LANs") and requests that the Commission continue to allocate the spectrum 2402-2417 for use by unlicensed Part 15 devices, which include the wireless LAN systems. Should the Commission determine that licensed services should coexist with Part 15 devices on the band, 3Com requests that protections for Part 15 devices be adopted.

II. The Entire Band of 2400-2483.5 MHz Should be Maintained for Use by Unlicensed Part 15 Devices

3Com and other developers of wireless LANs have designed their systems to operate in the 2400-2483.5 MHz band. This equipment brings mobility and portability to computing by enabling users to access computer resources without a direct wired connection from their portable computer. In addition, wireless LANs will allow schools and businesses to implement networks without the expense and difficulty of cabling their older buildings.

Wireless LANs need the full spectrum of 2400-2483.5 because the equipment operates on the principle of "spread spectrum," a process which scatters information over a broad band and facilitates the exchange of large amounts of data at high rates of speed. Removing 15 MHz of spectrum from the current 2400 MHz band allocation would significantly reduce the speed and efficiency of the wireless systems now deployed and being developed. To protect these systems, the Commission should continue to allow full use of this spectrum by unlicensed Part 15 devices.

III. The Commission Must Ensure that Sufficient Spectrum is Available for the Rapidly-Expanding Market of Wireless LANs

The Commission is seeking to allocate spectrum in this and other proceedings to promote radio services which will "create new jobs, foster economic growth, and improve access to

communications by industry and the American public."¹ The emerging market for wireless data communications equipment will bring these benefits, and in particular, create high technology and high income jobs for U.S. citizens. The market for wireless office equipment has doubled in the last year, from \$100 million in 1993 to \$200 million in 1994 and sales are expected to reach \$350 million in 1995.² Market analysts also predict that annual sales of this equipment will be between \$750 million and \$1 billion by the year 2000. 3Com and other U.S. developers are poised at the cutting-edge of technology and prepared to serve this expanding market, however, the key to their success will depend on the allocation of sufficient radio-frequency spectrum by the Commission to develop and deploy unlicensed radio-based communications systems.

IV. 3Com and Other Wireless Manufacturers are Not in a Position to Provide Useful Comments to the Commission on Alternative Regulations for the 2402-2417 MHz Band Without Additional Information

In the *NPRM*, Paragraph 19, the Commission requested further comment on the use of the 2402-2417 MHz band by licensed services which would be subject to rules similar to the Part 15 regulations. Without more clearly-defined information regarding the nature and scope of these rules, 3Com and other wireless LAN developers cannot provide useful or accurate comments about the

¹ *NPRM*, para 1.

² 20-Fold Increase in Wireless Office Gear Predicted, *Newsbytes*, October 26, 1994.

problems this shared use would raise for their systems.

In addition, the Commission asked for comments regarding the use of the band for MSS. As above, the Commission needs to provide 3Com and other developers with additional information regarding the nature and scope of this proposed use before meaningful responses can be provided.

Shared use of the 2402-2417 MHz spectrum with licensed services may be appropriate, but the Commission must place the burden on those proposing licensed service to show that their systems will not interfere with existing Part 15 technology and the Commission must take substantive steps to protect incumbent Part 15 operations.

V. **Conclusion**

In conclusion, it is the position of 3Com Corporation that the Commission strongly consider retaining the integrity of the entire 2400-2483.5 MHz band for unlicensed Part 15 radio transmitters.

Respectfully submitted,
3COM CORPORATION

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